

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009748**Date Inspected:** 17-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Yumin**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 2AW/2BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW2A-003. The welder is identified as #048654 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-repair-1 for WR8104 UT reject, excavation at Y location 0mm thru 100mm from counter weight side Bottom Plate.

Segment 2AE/2BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE2A-004. The welder is identified as #049769 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-repair-1 for CWR836 UT reject, Y location 4655mm from cross beam side Bottom

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Plate.

Segment 1AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as OBW1A-004. The welder is identified as #050433 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

Segment 1AAW/1AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW1A-004. The welder is identified as #049769 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-repair-1 for CWR845.

During random visual inspection this QA Inspector performed Magnetic Particle Testing (MT) of an Ultrasonic Testing (UT) reject excavation in the segment CJP Side Plate splice, cross beam side joining SP397A (1AW) and PL1475A (1AAW). ZPMC technicians previously tested and accepted this excavation. During QA verification this QA Inspector discovered 3 transverse cracks in the excavation. One (1) crack was located at Y location 1945mm and two (2) cracks at Y location 2785mm from the cross beam side Edge Plate. The transverse crack at Y 1945mm was approximately 2mm in length and approximately 1mm each at Y 2785mm. An Incident report was written for this issue.

Segment 5CE

During random visual inspection this QA Inspector observed that six (6) X3P connection plates were removed from T-stiffeners of the Bottom plate and Side Plates in segment 5CE at panel point 36 at the following locations:

SP604A, T-stiffener RS98K welds SSD19-PP36-046, 047 (#1)

BP116A, T-stiffener RS24X welds SSD19-PP36-048, 049 (#2)

BP112A, T-stiffener RSU25B welds SSD19-PP36-056, 057 (#3), 050, 051 (#4), 046, 047 (#5)

SP360A, T-stiffener R37AA welds SSD19-PP36-042, 043 (#6)

An Incident report was written for this issue.

ZPMC Quality Control (QC) Inspector is identified as Feng Ya Jun. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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Inspected By:	Hernandez,Dan	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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